

# **MAINVIEW<sup>®</sup> for WebSphere Application Server Customization Guide**

**Version 2.2.00**

**November 24, 2003**



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## Contacting BMC Software

You can access the BMC Software Web site at <http://www.bmc.com>. From this Web site, you can obtain information about the company, its products, corporate offices, special events, and career opportunities.

### United States and Canada

<b>Address</b>	BMC Software, Inc. 2101 CityWest Blvd. Houston TX 77042-2827
<b>Telephone</b>	713 918 8800 or 800 841 2031
<b>Fax</b>	713 918 8000

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<b>Telephone</b>	(01) 713 918 8800
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## Customer Support

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### Support Web Site

You can obtain technical support from BMC Software 24 hours a day, 7 days a week at <http://www.bmc.com/support.html>. From this Web site, you can

- read overviews about support services and programs that BMC Software offers
- find the most current information about BMC Software products
- search a database for problems similar to yours and possible solutions
- order or download product documentation
- report a problem or ask a question
- subscribe to receive e-mail notices when new product versions are released
- find worldwide BMC Software support center locations and contact information, including e-mail addresses, fax numbers, and telephone numbers

### Support by Telephone or E-mail

In the United States and Canada, if you need technical support and do not have access to the Web, call 800 537 1813. Outside the United States and Canada, please contact your local support center for assistance. To find telephone and e-mail contact information for the BMC Software support center that services your location, refer to the Contact Customer Support section of the Support page on the BMC Software Web site at [www.bmc.com/support.html](http://www.bmc.com/support.html).

### Before Contacting BMC Software

Before you contact BMC Software, have the following information available so that Customer Support can begin working on your problem immediately:

- product information
  - product name
  - product version (release number)
  - license number and password (trial or permanent)
- operating system and environment information
  - machine type
  - operating system type, version, and service pack or other maintenance level such as PUT or PTF
  - system hardware configuration
  - serial numbers
  - related software (database, application, and communication) including type, version, and service pack or maintenance level
- sequence of events leading to the problem
- commands and options that you used
- messages received (and the time and date that you received them)
  - product error messages
  - messages from the operating system, such as `file system full`
  - messages from related software



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# About This Book

This book contains detailed information about installing and customizing MAINVIEW for WebSphere Application Server.

To use this book, you should be familiar with the following items:

- Multiple Virtual Storage (MVS) systems, job control language (JCL), and the Interactive System Productivity Facility (ISPF)
- your client and host operating systems

For example, you should know how to respond to ISPF panels and how to perform common actions in a window environment (such as choosing menu commands and resizing windows).

## How This Book Is Organized

This book is organized as follows. In addition, an index appears at the end of the book.

Chapter	Description
Chapter 1, "Installation Overview"	provides an overview of the installation process and an explanation of the Installation Checklist Generator, including a copy of the checklist for this product
Chapter 2, "Installation Preparation"	provides information about preparing to install MAINVIEW for WebSphere Application Server in your environment, including (among other things) software, security, and other prerequisites
Chapter 3, "Customization"	describes how to customize MAINVIEW for WebSphere Application Server for operation in your environment, including setting product parameters and setting up JVM profiling

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## Related Documentation

BMC Software products are supported by several types of documentation:

- online and printed books
- online Help
- release notes and other notices

In addition to this book and the online Help, you can find useful information in the publications that are listed in the following table. As “Online and Printed Books” on page xi explains, these publications are available on request from BMC Software.

Category	Document	Description
installation documents	<i>Implementing Security for MAINVIEW Products</i>	describes how to implement MAINVIEW security with your external security manager to protect MAINVIEW product resources from user access
	<i>MAINVIEW Common Customization Guide</i>	provides instructions for manually customizing the MAINVIEW environment for your products
	<i>MAINVIEW Installation Requirements Guide</i>	provides product-specific information such as software and storage requirements, product libraries, and FMIDs
	<i>OS/390 and z/OS Installer Guide</i>	provides instructions for using the installation system, and describes the Product Authorization utility and AutoCustomization

Category	Document	Description
core documents	<i>MAINVIEW Administration Guide</i>	provides information about MAINVIEW operations, targets, single-system image contexts, MAINVIEW Alarm Manager, data sets, view customization, and diagnostic facilities
	<i>MAINVIEW Alarm Manager User Guide</i>	describes how to create and install alarm definitions that indicate when exceptions occur in a sysplex
	<i>MAINVIEW Alternate Access Implementation and User Guide</i>	explains how to configure, start, and stop VTAM and EXCP AutoLogon sessions to access MAINVIEW products without an active TSO subsystem
	<i>MAINVIEW for WebSphere Application Server User Guide</i>	provides information about product features, product functions, and how to use MAINVIEW for WebSphere Application Server
	<i>MAINVIEW Quick Reference</i>	provides a quick reference for MAINVIEW terminal sessions, logs, data sets, targets, contexts, windows mode, and full-screen mode and describes the functions, syntax, and parameters of the commands that are used to manage the MAINVIEW window environment
	<i>Using MAINVIEW</i>	provides information about working with MAINVIEW products in windows mode and full-screen mode
supplemental documents	release notes, flashes, technical bulletins	provide current information about MAINVIEW for WebSphere Application Server

## Online and Printed Books

The books that accompany BMC Software products are available in online format and printed format. If you are a Windows or Unix user, you can view online books with Acrobat Reader from Adobe Systems. The reader is provided at no cost, as explained in “To Access Online Books.” You can also obtain additional printed books from BMC Software, as explained in “To Request Additional Printed Books.”

### To Access Online Books

Online books are formatted as Portable Document Format (PDF) files. You can view them, print them, or copy them to your computer by using Acrobat Reader 3.0 or later. You can access online books from the documentation compact disc (CD) that accompanies your product or from the World Wide Web.

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In some cases, installation of Acrobat Reader and downloading the online books is an optional part of the product-installation process. For information about downloading the free reader from the Web, go to the Adobe Systems site at **<http://www.adobe.com>**.

To view any online book that BMC Software offers, visit the support page of the BMC Software Web site at **[http://www.bmc.com/support\\_home](http://www.bmc.com/support_home)**. Log on and select a product to access the related documentation. (To log on, first-time users can request a user name and password by registering at the support page or by contacting a BMC Software sales representative.)

### **To Request Additional Printed Books**

BMC Software provides printed books with your product order. To request additional books, go to **[http://www.bmc.com/support\\_home](http://www.bmc.com/support_home)**.

## **Online help**

MAINVIEW for WebSphere Application Server includes online Help. In the MAINVIEW for WebSphere Application Server ISPF interface, you can access Help by pressing **F1** from any ISPF panel.

## **Release Notes and Other Notices**

Printed release notes accompany each BMC Software product. Release notes provide current information such as

- updates to the installation instructions
- last-minute product information

In addition, BMC Software sometimes provides updated product information between releases (in the form of a flash or a technical bulletin, for example). The latest versions of the release notes and other notices are available on the Web at **[http://www.bmc.com/support\\_home](http://www.bmc.com/support_home)**.

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# Conventions

This section provides examples of the conventions that are used in this book.

## General Conventions

This book uses the following general conventions:

Item	Example
information that you are instructed to type	Type <b>SEARCH DB</b> in the designated field.
specific (standard) keyboard key names	Press <b>Enter</b> .
field names, text on a panel	Type <b>the appropriate entry</b> in the <b>Command</b> field.
directories, file names, Web addresses	The BMC Software home page is at <b>www.bmc.com</b> .
nonspecific key names, option names	Use the HELP function key.
MVS calls, commands, control statements, keywords, parameters, reserved words	Use the SEARCH command to find a particular object.
code examples, syntax statements, system messages, screen text	//STEPLIB DD  The table <i>table_name</i> is not available.
emphasized words, new terms, variables	The instructions that you give to the software are called <i>commands</i> .  In this message, the variable <i>file_name</i> represents the file that caused the error.

This book uses the following types of special text:

**Note:** Notes contain important information that you should consider.

**Tip:** Tips contain useful information that may improve product performance or that may make procedures easier to follow.

**Warning!** Warnings alert you to situations that could cause problems, such as loss of data, if you do not follow instructions carefully.

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# Summary of Changes

This summary of changes includes changes to the functionality of the product, enhancements to the product, and any major changes to the documentation. The summary of changes is listed by release date.

Revision bars are used in the manual to note changes that clarify or correct existing information or that provide new information related to product changes. Revision bars are not used to note editorial and formatting changes or typographical errors that have been corrected unless these updates significantly affect the use of the information.

**Version 2.2.00**

**November 24, 2003**

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## Dynamic Inclusion/Exclusion of Profiled Classes

With MAINVIEW for WebSphere Application Server 2.2.00, method profiling is disabled by default. This change improves product performance by limiting the amount of overhead required to diagnose specific problems on the fly.

You can now enable or disable profiling on select classes by using the **STA** (start) and **STO** (stop) commands on the Loaded Classes (JVMCLASZ) view, instead of adding classes to the **profiler.properties** file to be profiled for method statistics.

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## Dynamic Thread Tracing

Dynamic Thread tracing allows you to view all the methods a selected thread is executing. You can view the thread trace data on the Trace Management (JVMTRACD) view.

## Dynamic Stack Tracing for Methods

Dynamic Stack Tracing for Methods allows you to select a method, the depth of the stack trace for that method and the number of times the trace should be invoked. You can view the stack trace data on the Trace Management (JVMTRACD) view.

## JVM Memory Statistics

The amount of total heap and used heap size for the JVM is displayed in the JVM Memory (JVMMEM) view.

## JAVA Connector Architecture Support

The JAVA Connector Architecture (JCA) supplied by IBM for the z/OS WebSphere Application Server allows for connectivity to CICS, DB2, and IMS subsystems. This release of MAINVIEW for WebSphere Application Server provides detailed connection status and performance metrics for the classes that implement these connection architectures.

## Memory Leak Detection

The Memory Leak Detection (JVMMEMML) view, new in this version of the product, displays thread object counts and size before and after garbage collection. You can also start and stop traces from this view.

## IBM WebSphere Application Server 5.0 Toleration

Tolerance includes the recognition of the IBM WebSphere Application Server 5.0 address space, the display of enclave data, and discovery of EJB and Application information. A specific profiler has been supplied to provide JVM, Thread, Method, Garbage Collection, and Memory information.



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**Version 2.1.00****November 20, 2002**

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The following changes and additions were made to this edition:

- The customization information about specifying a specific HTTP server in the product parameters was removed.
- Information concerning new product parameters was added
- Information about setting up profiling on system and activating it for one or more specific WAS plug-ins or WAS 4.x server instances was added
- Documentation for numerous new views was added
- Information about JVM environment variables and properties was added

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**Version 2.0.00****July 15, 2002**

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This release of this document contains the following changes:

- Information was added about the startup parameters for the product. This information was available in the *MAINVIEW for WebSphere Application Server User Guide* but has been made more explicitly and easily available in this document. Please refer to “Create Input Params” on page 3-10 in Chapter 3, “Customization.”

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**Version 2.0.00****March 15, 2002**

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The MAINVIEW for WebSphere Application Server documentation library now includes the *MAINVIEW for WebSphere Application Server Customization Guide*. The customization guide provides instructions for customizing MAINVIEW for WebSphere Application Server when the product has been installed by using the OS/390 and z/OS Installer.



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# Chapter 1      Installation Overview

MAINVIEW for WebSphere Application Server operates in its own product address space (PAS). It uses product-specific services, but it also takes advantage of services that are common to the MAINVIEW environment.

This chapter contains the following sections:

Installation System .....	1-2
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Combining Checklists for Multiple Products.....	1-3
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Installation Steps .....	1-4
Customization Steps.....	1-5
Where to Go from Here .....	1-7

# Installation System

MAINVIEW for WebSphere Application Server can be installed by using the OS/390 and z/OS Installer. The installation system provides the combined benefits of IEBCOPY and System Modification Program Extended (SMP/E).

- IEBCOPY loads all the required elements from tape but does not create a change management environment.
- SMP/E performs the actions of IEBCOPY and implements a change management environment.

The installation system combines tape images, copies files to your system (IEBCOPY or SMP/E), and creates installation job control language (JCL). The installation system delivers the speed and simplicity of IEBCOPY *and* the control and flexibility of SMP/E, enabling a fast customization path for customers who require a rapid installation and the ability to view each customization step.

The installation system provides the following options for installing your BMC Software products:

- Standard installation:
  - IEBCOPY unload (required)
  - SMP/E library creation (optional)
- Full SMP/E installation

The installation system provides a consistent distribution, installation, customization, and maintenance process for installing BMC Software solutions on OS/390 and z/OS platforms. For more information about installing MAINVIEW for WebSphere Application Server by using the OS/390 and z/OS Installer, see the *OS/390 and z/OS Installer Guide*.

## Installation Checklist

The installation checklist outlines the steps that you must perform to install and run your product (or products). The checklist summarizes what you must do and refers you to detailed instructions.

The checklist is divided into the following sections:

- “Preparation Steps” on page 1-3
- “Installation Steps” on page 1-4

- “Customization Steps” on page 1-5

When you have completed the installation, see “Where to Go from Here” on page 1-7.

## Combining Checklists for Multiple Products

The checklist is for the product (or products) that are listed in “Combining Checklists for Multiple Products” on page 1-3. You can use the Installation Checklist Generator to create a checklist that integrates the checklist in this book with checklists in other product books.

When you use the checklist generator, you select the products that you are going to install and the checklist generator produces an integrated checklist. The integrated checklist outlines all steps that you must complete for successful installation of all your products.

The checklist generator is available on your documentation CD. For information about running the checklist generator, see the *OS/390 and z/OS Installer Guide*.

## Products

This checklist pertains to the following BMC Software products:

- MAINVIEW for WebSphere Application Server version 2.2.00

## Preparation Steps

The following preparation steps help you prepare for installation of your products. The steps describe the tasks that you must complete and the items that you must assemble before you start installation.

✓	Step	Task	Description	Reference
	1	assemble needed materials	Gather all installation tapes, tape cover letters, product release notes, product technical bulletins, the <i>OS/390 and z/OS Installer Guide</i> , customization guides, planning guides, and so on.	your product shipment and the <b>support page</b> BMC Software Web site
	2	review tape cover letters	The tape cover letters are shipped with your tapes. They list the materials in your shipment.	your product shipment or product release notes

✓	Step	Task	Description	Reference
	3	review product release notes	The release notes describe enhancements, changes, and fixes for a product and contain important information you need to know.	your product shipment
	4	review technical bulletins and flashes	Technical bulletins and flashes contain information about problems that have been identified since the product was last released.	your product shipment and the <b>support page</b> BMC Software Web site
	5	obtain product passwords	Contact BMC Software to obtain the passwords for your products.	<i>OS/390 and z/OS Installer Guide</i> , "BMC Software Product Authorization" appendix password request form or cover letter
	6	read prerequisites	Prerequisites state the operating system version requirements, space requirements, authorization requirements, and so on.	<i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Preparation" chapter
	7	read installation considerations	Installation considerations describe information about running with other products and product implementation.	<i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Preparation" chapter
	8	obtain authorization to complete the installation	Reading the installation tapes or creating the installation data sets might require RACF authorization.	contact your system administrator, security administrator, or other administrator
	9	obtain authorization to complete customization	Customization of some products might require APF authorization.	<i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Preparation" chapter
	10	complete planning, testing, and setup	This information is required before product installation and for migration from another product.	<i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Preparation" chapter

## Installation Steps

The following installation steps help you run the BMC Software OS/390 and z/OS Installer to successfully complete installation for all of your OS/390 and z/OS BMC Software products. The installation system combines tape images, copies files to your system (Standard or SMP/E), creates installation JCL, and applies maintenance to installed products.

✓	Step	Task	Description	Reference
	1	understand the installation system	The installation system has features and functions that you should be familiar with before using it.	<i>OS/390 and z/OS Installer Guide</i> , “Introduction” chapter
	2	unload the base installation libraries from the installation tape	The base installation libraries contain the installation system.	<i>OS/390 and z/OS Installer Guide</i> , “Using the Installation System” chapter
	3	create the customized installation libraries	The customized installation libraries specify a site-specific installation environment.	<i>OS/390 and z/OS Installer Guide</i> , “Using the Installation System” chapter
	4	start the installation system	The installation system automates many installation steps.	<i>OS/390 and z/OS Installer Guide</i> , “Using the Installation System” chapter
	5	specify repository information	The repository profile contains installation and customization options that are used when performing subsequent installations.	<i>OS/390 and z/OS Installer Guide</i> , “Using the Installation System” chapter
	6	specify user options	The user options determine how the installation system runs and specify where installation JCL is stored.	<i>OS/390 and z/OS Installer Guide</i> , “Using the Installation System” chapter
	7	select the products to install	The installation system generates all the steps necessary for the products you want to install.	<i>OS/390 and z/OS Installer Guide</i> , “Using the Installation System” chapter
	8	run the JCL that was created by the installation system	The installation system presents installation JCL for your approval and helps you to run the JCL.	<i>OS/390 and z/OS Installer Guide</i> , “Running Installation JCL” chapter
	9	specify product authorization passwords	Permission to run your products is granted.	<i>OS/390 and z/OS Installer Guide</i> , “Using the Installation System” chapter
	10	verify installation	Some products include an installation verification program (IVP) or provide information to verify installation.	

## Customization Steps

The following customization steps describe the tasks that you must complete to run your product (for some products, additional customization options might be available once the product is running). Some tasks might be performed by using the installation system, while other tasks might be performed by using a separate utility.

✓	Step	Task	Description	Reference
	1	choose the customization option in the installation system	Customization is started through the customization option in the installation system.	<i>OS/390 and z/OS Installer Guide</i> , "Using the Installation System" chapter
	2	create or update system objects, components, or resources	System objects, components, and resources include such items as sysplex or coupling facility, VTAM, TCP/IP, and LPARs.	<i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Customization" chapter
	3	create or update subsystem objects, components, or resources	Subsystem objects, components, and resources include such items as DB2 plans, DB2 table spaces, and APPLIDs.	<i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Customization" chapter
	4	allocate, create, or update data sets or files	Many products require specific data sets or files.	<i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Customization" chapter
	5	set up data collectors	Many products use a data collector to store system data that they have collected.	<i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Customization" chapter
	6	install or update the interface	Some products require customization of ISPF or require the use of an interface other than ISPF.	<i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Customization" chapter
	7	create or update profiles or global parameters	Most products require profiles or parameters to be set or updated.	<i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Customization" chapter
	8	create or update the initialization PROC, CLIST, REXX EXEC, or started task	Most products require a startup routine to run.	<i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Customization" chapter
	9	define or update security	All products provide information for interfacing to RACF or other security products. Some products include their own security features in addition to or instead of RACF security.	<i>Implementing Security</i> , "Enhanced Security" section <i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Customization" chapter
	10	implement user exits	Some products provide user exits for interfacing with the product.	<i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Customization" chapter



✓	Step	Task	Description	Reference
	11	perform additional customization tasks for your products	Some products require additional tasks to be performed before the products are completely installed.	<i>MAINVIEW for WebSphere Application Server Customization Guide</i> , "Installation Customization" chapter
	12	verify customization	Some products provide information to verify customization of the product.	

## Where to Go from Here

When installation of your products is complete, refer to the *MAINVIEW for WebSphere Application Server User Guide*.



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# Chapter 2    Installation Preparation

This chapter provides information about preparing for MAINVIEW for WebSphere Application Server installation. This chapter contains the following sections:

Overview . . . . .	2-2
Required Materials . . . . .	2-2
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Checklists . . . . .	2-2
Prerequisites . . . . .	2-4
System Requirements . . . . .	2-4
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Relationships among Installed Software. . . . .	2-5
Flowchart for Components of Version 2.2.00 . . . . .	2-6
Product Authorization. . . . .	2-5

## Overview

Before you install MAINVIEW for WebSphere Application Server, you must gather specific information. This chapter describes the materials, prerequisites, and product authorization that can help you install and customize MAINVIEW for WebSphere Application Server. The chapter also includes a flowchart to help you decide the way in which you would like to install MAINVIEW for WebSphere Application Server into your environment.

## Required Materials

This section describes the materials that you must gather and review before installing MAINVIEW for WebSphere Application Server.

## Books and Notices

Table 2-1 lists the installation and customization books that you will need to install and customize MAINVIEW for WebSphere Application Server.

**Table 2-1**      **Installation and Customization Materials**

Material	Description
release notes, flashes, and technical bulletins	provide important product information and last-minute information
<i>OS/390 and z/OS Installer Guide</i>	provides information about the OS/390 and z/OS Installer
<i>MAINVIEW for WebSphere Application Server Customization Guide</i>	provides installation planning information and instructions for setup and testing, and provides instructions for customizing MAINVIEW for WebSphere Application Server when it has been installed by using the OS/390 and z/OS Installer

## Checklists

The installation checklist outlines the steps that you must perform to install and run MAINVIEW for WebSphere Application Server. The checklist summarizes what you must do and refers you to detailed instructions.

The Installation Checklist Generator is available on your documentation CD, and the most current version is on the BMC Software Web site at **[http://www.bmc.com/support\\_home](http://www.bmc.com/support_home)**. Using the checklist generator, you can select a set of products that are available in the installation system to produce an integrated checklist that lists each step you must complete for successful installation.

The checklist provides the following information:

- list of pre-installation tasks to complete and items to assemble
- specific installation tasks to help you run the installation system and successfully complete the installation
- list of the customization tasks that are necessary to run your product
- references to where you can find additional or supporting information

You can run the Installation Checklist Generator, *or* you can copy and combine checklists from the customization books for the BMC Software products that you plan to install.

The checklist for MAINVIEW for WebSphere Application Server is available in this document at “Installation Checklist” on page 1-2 in Chapter 1, “Installation Overview.”

# Installation Information

For procedures about acquiring and installing MAINVIEW for WebSphere Application Server, see the *OS/390 and z/OS Installer Guide*. You may also receive PUT and cumulative maintenance tapes with applicable PTFs.

For information about product storage requirements, FMIDS, and target and distribution libraries, refer to the *MAINVIEW Installation Requirements Guide*. Target and distribution libraries are in the base MAINVIEW installation.

MAINVIEW AutoCustomization performs many install steps, providing panels on which you can enter required information. Complete information about AutoCustomization is available in Chapter 3, “Customization.”

## Prerequisites

This section describes the hardware, software, and security prerequisites.

## System Requirements

System requirements include an appropriate operating system and a needed infrastructure:

- OS/390 2.10 or later or z/OS 1.1 or later
- MAINVIEW Infrastructure (created as part of full AutoCustomization)

## Supported Software

MAINVIEW for WebSphere Application Server supports the following software, from which information is collected to populate various views:

- IBM HTTP Server 5.0 or later

**Note:** To use the JVM profiling capabilities of MAINVIEW for WebSphere Application Server, you must have WAS 3.5 plug-in or later or WAS 4.0.01 or later.

- the following versions of IBM WebSphere Application Server for z/OS and OS/390
  - version 3.5 or later for use with WAS plug-ins

- version 4.0 or later for use with J2EE/CORBA container address spaces
- version 5.0
- IBM JDK 1.3 (required for profiling)
- PATROL for WebSphere Application Server 1.2.00 or later (requires separate purchase—contact your BMC Software sales representative for information)

## Product Authorization

Before you can use MAINVIEW for WebSphere Application Server, you must perform product authorization. For more information about the BMC Software Product Authorization utility, see the OS/390 and z/OS Installer *Guide*.

## Dispatching Priority:

MAINVIEW for WebSphere Application Server should be set up with the same dispatching priority as the application server and as other monitoring tools.

## RACF Requirements

A security product like Resource Access Control Facility (RACF) is required for the IBM HTTP server. OMVS segment authority must be granted to some MAINVIEW for WebSphere Application Server components, which are identified in “AutoCustomization Tasks” on page 3-3.

## Relationships among Installed Software

MAINVIEW for WebSphere Application Server operates as a client to the MAINVIEW Infrastructure and uses MAINVIEW services. With MAINVIEW for WebSphere Application Server, this MAINVIEW Infrastructure is created separately as part of AutoCustomization and is separate from the MAINVIEW Infrastructure product address space (PAS) used communally by some of the other MAINVIEW products.

## Installed MAINVIEW Software

For procedures about acquiring and installing MAINVIEW for WebSphere Application Server, see the *OS/390 and z/OS Installer Guide*. Target and distribution libraries are in the base MAINVIEW installation. You may also receive PUT and cumulative maintenance tapes with applicable PTFs.

For information about software and storage requirements, product and FMIDS, refer to the *MAINVIEW Installation Requirements Guide* and the MAINVIEW for WebSphere Application Server Release Notes.

MAINVIEW AutoCustomization performs many install steps, providing panels on which you can enter required information. This document also describes steps you must complete yourself.

must customization MAINVIEW Explorer customization and it's address space needs to be started and that address started to enable communication provide

## Interaction with Other Software

In addition to its interaction with the MAINVIEW Infrastructure, the MAINVIEW for WebSphere Application Server product interacts with one or more HTTP servers, IBM WebSphere Application Server for z/OS and OS/390 (as WAS plug-ins, WAS 4.x or 5.0 server instances, or both), Java Virtual Machine (JVM) instances, and the MAINVIEW for WebSphere Application Server JVM profiler.

The following flowcharts portray relationships among the installation of MAINVIEW for WebSphere Application Server, its own capabilities, and other software components that make up the IBM WebSphere Application Server for z/OS and OS/390 environment.

## Flowchart for Components of Version 2.2.00

The flowchart in this section presents a graphic illustration of decisions to be made in MAINVIEW for WebSphere Application Server version 2.2.00.

### How to Read the Flowchart

The flowchart represents two kinds of information:



1. decisions that you must make about customizing or managing the product
2. results of a given decision

The following principles apply to the flowchart:

- Elements in diamond shapes represent issues around which a decision must be made.
- Elements in squares or rectangles represent outcomes based on whether you decide Yes or No about the associated issue.
- Circles containing a single, large letter indicate the point at which one part of a given flowchart ends and the next part of the same flowchart continues.
- Dotted brackets contain explanatory information about parts of the flowchart.

The flowchart is divided into the following three sections, each of which is related to one of the three Easy menus that comes up when you make a selection in the main menu (**Easy Menu for WebSphere**):

Version 2.2.00 Installation—HTTP Server Information, Part 1 . . . . 8

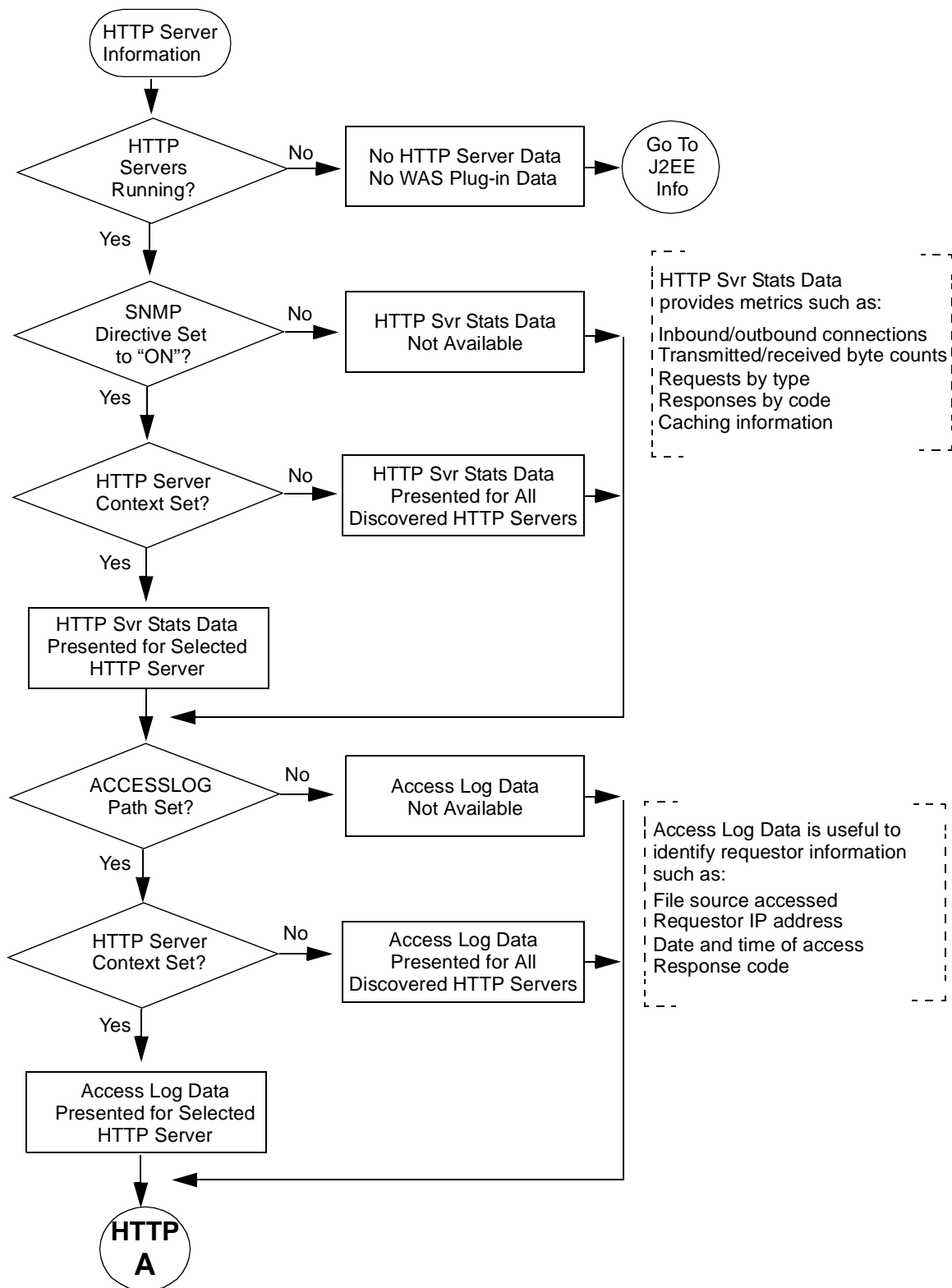
Version 2.2.00 Installation—HTTP Server Information, Part 2 . . . . 9

Version 2.2.00 Installation—WAS Plug-in Information . . . . . 10

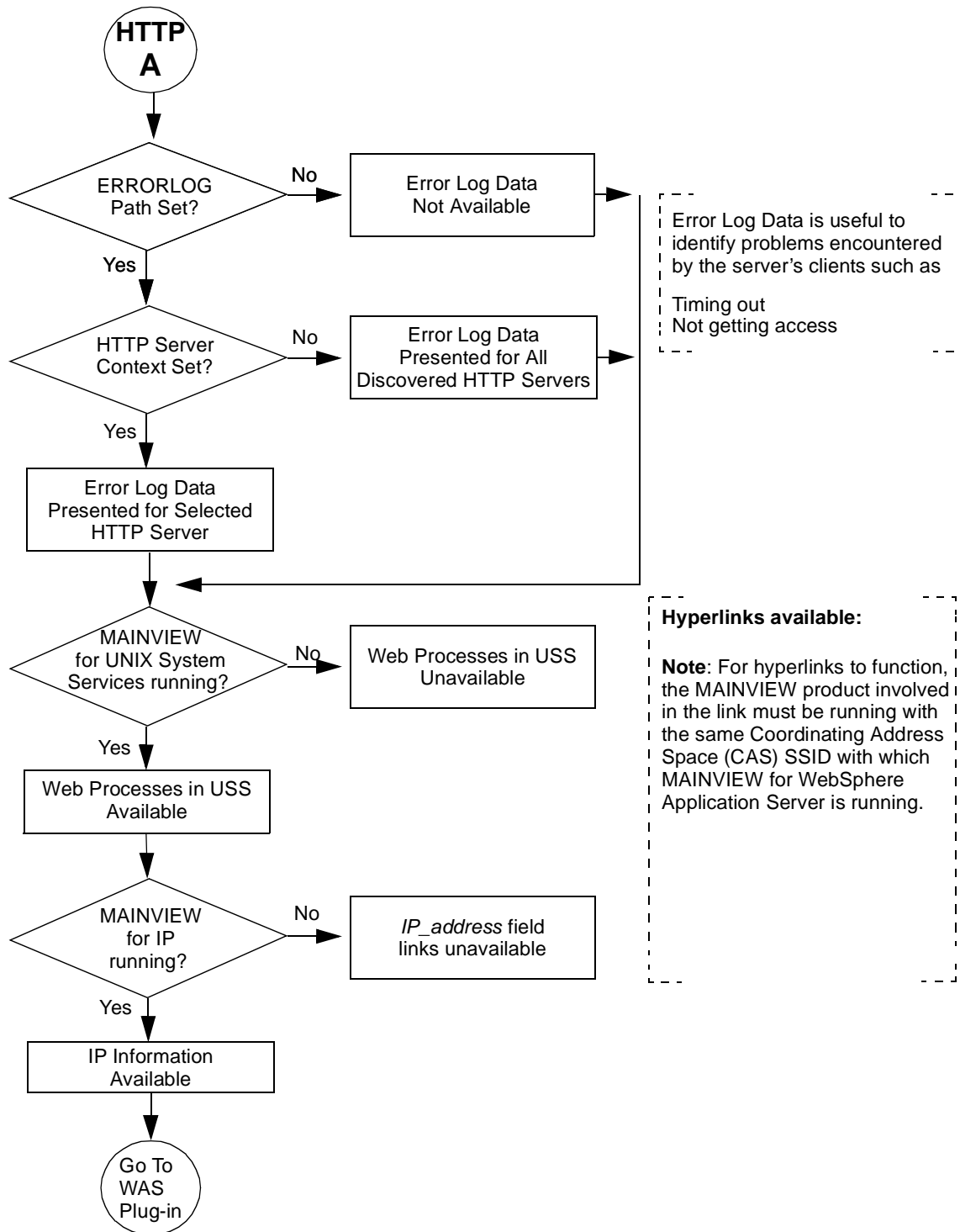
Version 2.2.00 Installation—J2EE Container Information, Part 1 . . 11

Version 2.2.00 Installation—J2EE Container Information, Part 2 . . 12

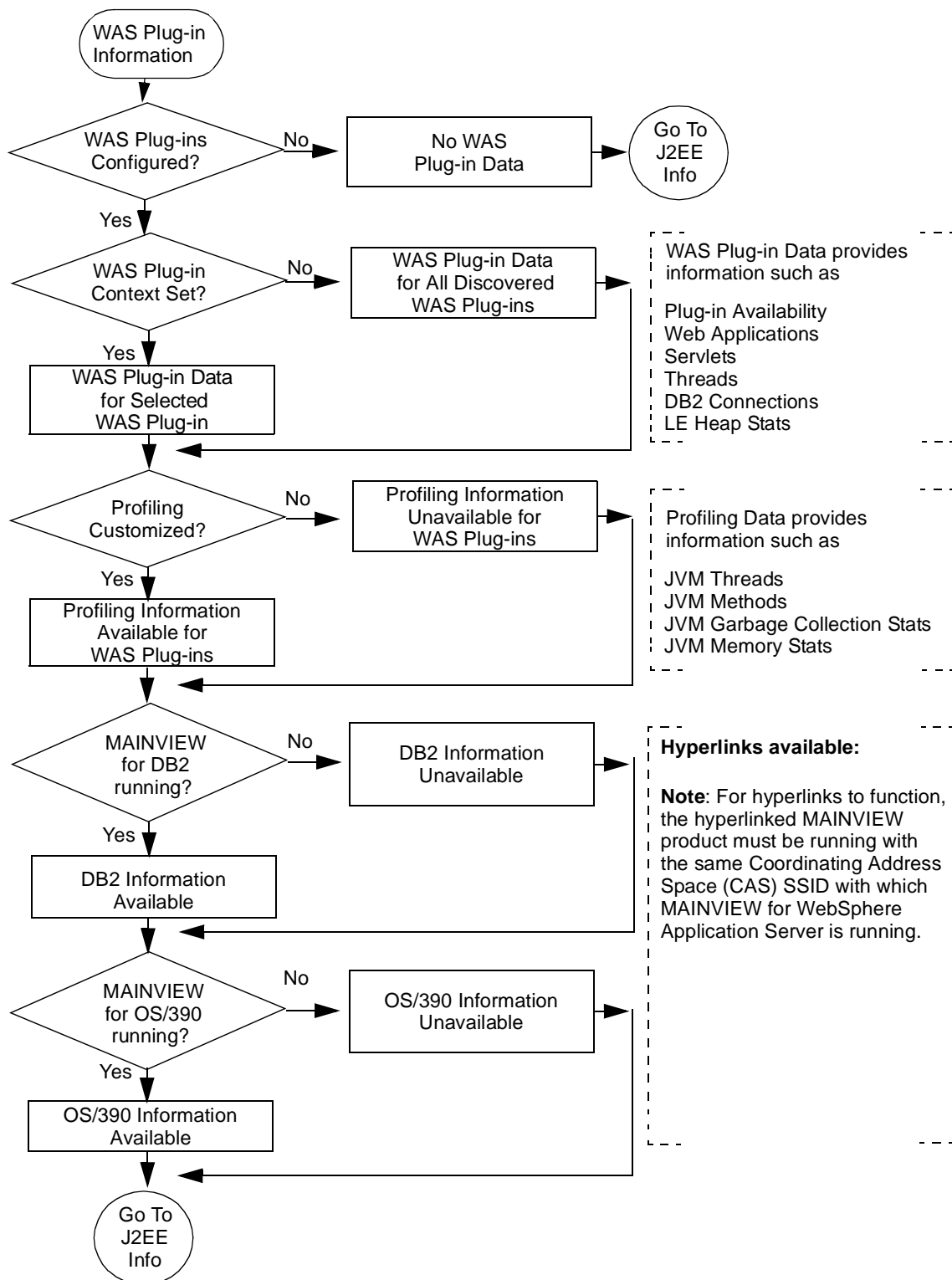
## Version 2.2.00 Installation—HTTP Server Information, Part 1



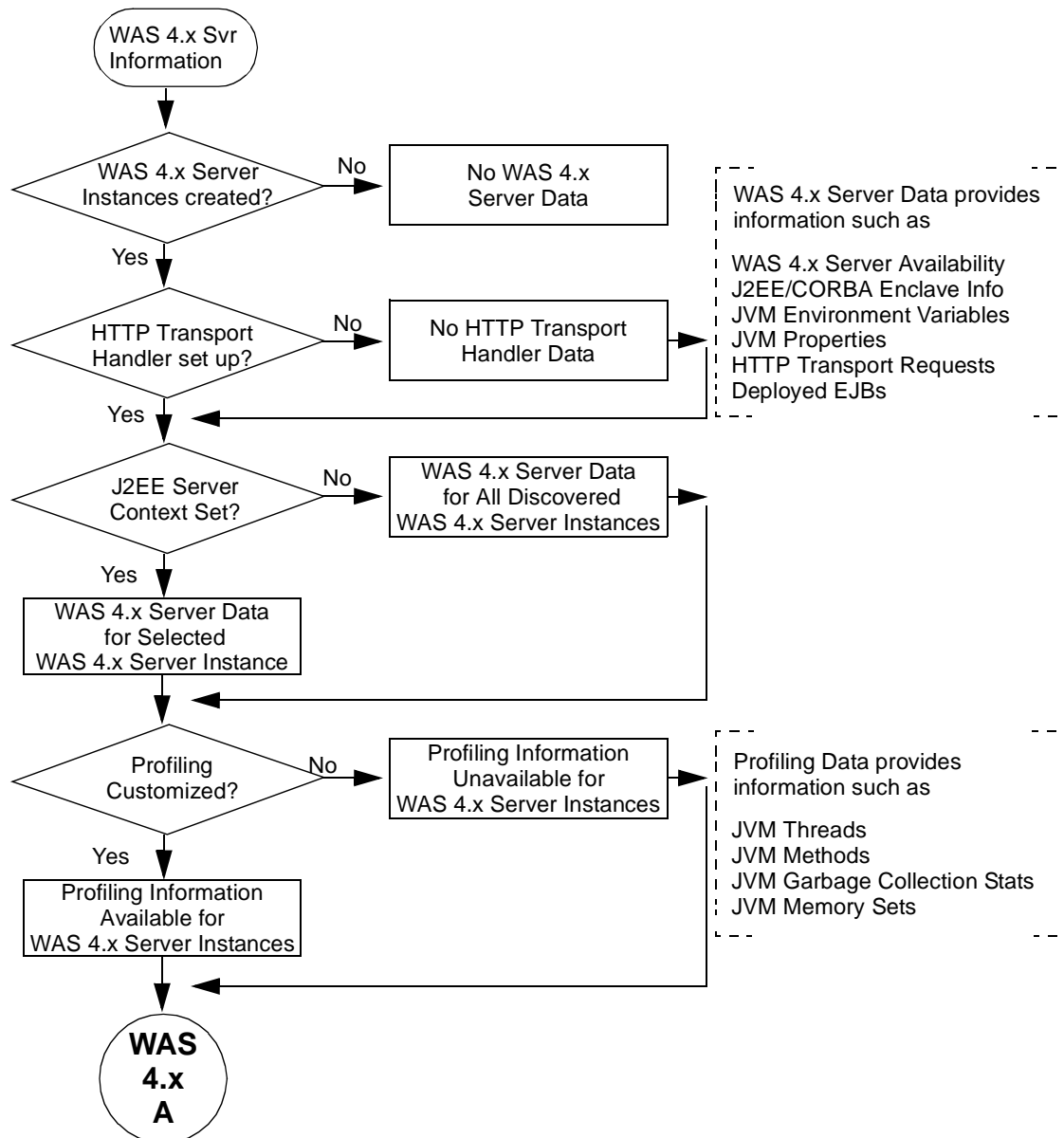
## Version 2.2.00 Installation—HTTP Server Information, Part 2



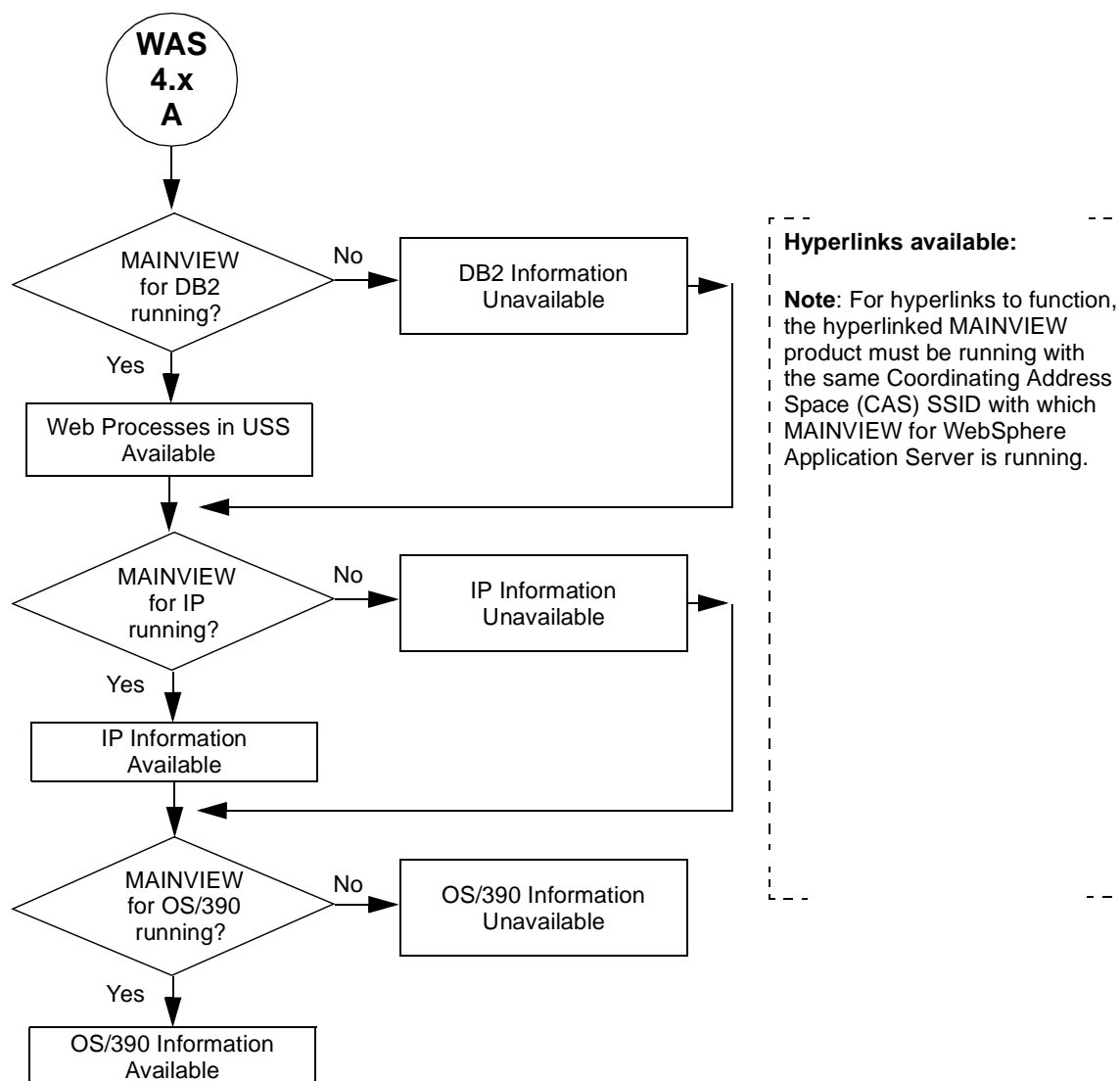
## Version 2.2.00 Installation—WAS Plug-in Information



## Version 2.2.00 Installation—J2EE Container Information, Part 1



## Version 2.2.00 Installation—J2EE Container Information, Part 2



## Where to Go from Here

Once you have assembled the needed materials, taken care of the prerequisites, determined the components you want to deploy in your environment, and performed the basic installation as explained in the *OS/390 and z/OS Installer Guide*, you need to customize MAINVIEW for WebSphere Application Server through the AutoCustomization process. AutoCustomization is discussed in Chapter 3, “Customization.”





---

## Chapter 3 Customization

This chapter explains the AutoCustomization process and explains other tasks that need to be done to get MAINVIEW for WebSphere Application Server up and running. The chapter includes the following sections and tasks:

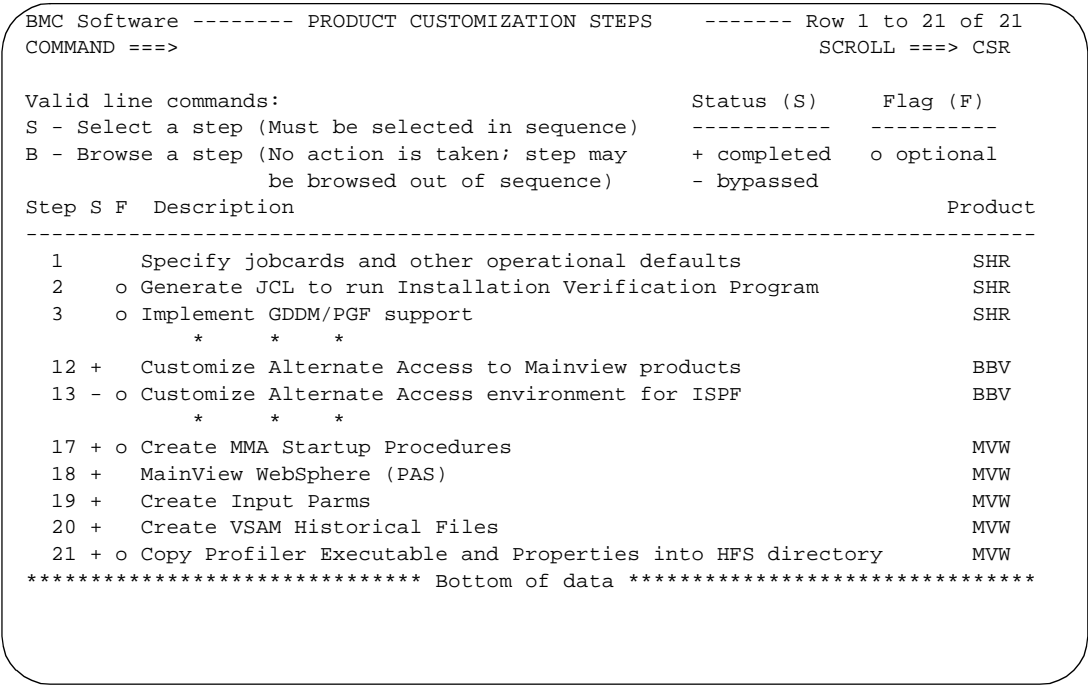
Overview . . . . .	3-2
AutoCustomization Tasks . . . . .	3-3
General Customization Tasks . . . . .	3-3
Product-Specific Customization Tasks . . . . .	3-3
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Create the Startup Procedure for the Product Address Space . . . . .	3-9
Create Input Parm.s . . . . .	3-10
Create VSAM Historical Files . . . . .	3-12
Copy Profiler Executable and Properties File into HFS Directory . . . . .	3-14
Other Customization Tasks . . . . .	3-16
Modifying Configuration Files for Profiling . . . . .	3-17
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# Overview

AutoCustomization provides an easy way to prepare MAINVIEW for WebSphere Application Server to be operational. The AutoCustomization process leads you through the required steps to customize your product installation and includes optional steps as well. The panel or panels in this process show you which of the steps you have completed, which steps are incomplete, and which steps you have elected to bypass. For detailed information about invoking and using AutoCustomization, see the *MAINVIEW Common Customization Guide*.

Figure 3-1 illustrates overall steps in a typical AutoCustomization of MAINVIEW for WebSphere Application Server. This process includes general steps for customizing the MAINVIEW Infrastructure and specific steps for customizing the MAINVIEW for WebSphere Application Server product. In the interest of space, other general steps are represented in the figure by three asterisks (\* \* \*).

Figure 3-1 Product Customization Steps



# AutoCustomization Tasks

## General Customization Tasks

The product customization steps panel that is illustrated in Figure 3-1 includes three classes of tasks, listed under the Product heading and divided by the products to which they pertain. The number of these tasks can vary, depending on what is being installed and what has already been installed. However, these tasks always fall into two groups:

- shared infrastructure tasks, which create the MAINVIEW environment that is common to all MAINVIEW products

These tasks are designated with the letters SHR and BBV.

- tasks that are specific to MAINVIEW for WebSphere Application Server designated with the letters MVW

**Note:** Before completing the tasks that are specific to MAINVIEW for WebSphere Application Server, you must complete at least the required tasks from the SHR group. One of these tasks is creating the Communication Address Space (CAS), which is essential for all MAINVIEW products on a given OS/390 or z/OS system.

For instructions on completing SHR and BBV tasks, see the *MAINVIEW Common Customization Guide*.

## Product-Specific Customization Tasks

This section describes the AutoCustomization steps that are specific to MAINVIEW for WebSphere Application Server. Table 3-1 summarizes these steps.

**Table 3-1** Summary of AutoCustomization Tasks

Step	Description
Create MMA Startup Procedures	<p><i>Optional (required for integrating with PATROL for WebSphere Application Server)</i></p> <p>This step provides for creation of the Middleware Management Architecture (MMA) server parameter options member and the startup procedures for the MMA Server and the MMA Communication Manager.</p> <p>For details about this step, see “Create MMA Startup Procedures” on page 3-5.</p>

**Table 3-1 Summary of AutoCustomization Tasks**

Step	Description
MAINVIEW WebSphere (PAS)	<i>Required</i> This step provides for creation of a startup procedure for the MAINVIEW for WebSphere Application Server PAS. For details about this step, see "Create the Startup Procedure for the Product Address Space" on page 3-9.
Create Input Parameters	<i>Required</i> Provides for creation of the input parameters for MAINVIEW for WebSphere Application Server. For details about this step, see "Create Input Params" on page 3-10.
Create VSAM Historical Files	<i>Required</i> This step provides for creation of the data sets for the MAINVIEW for WebSphere Application Server interval recorder functionality so you can view historical data collected by the product. For details about this step, see "Create VSAM Historical Files" on page 3-12.
Copy Profiler Executable and Properties into HFS directory	<i>Optional (required if JVM profiling is to be performed)</i> This step provides for creation of JCL for a batch job that copies the executable for the profiler and the profiler.properties file into an HFS directory. You must submit this JCL to every system on which you are going to use the profiling capabilities of MAINVIEW for WebSphere Application Server. You must also modify the environment configuration file of each application server on which profiling is to be enabled. For details about this step, see "Copy Profiler Executable and Properties File into HFS Directory" on page 3-14.

## Create MMA Startup Procedures

---

**Summary:** *Optional.* This task is optional for overall product operations, but is required for integration with PATROL for WebSphere Application Server. During initial customization it must be either completed or bypassed as explained in the following sections. In this task you set the MMA server parameter options member and create startup procedures for the MMA server and MMA communication address spaces.

---

### Before You Begin

Complete all required AutoCustomization steps and any optional steps that you choose from common infrastructure steps, which are designated in the Product column with the letters SHR (shared) or BBV (alternate access).

You can bypass fully completing this step if either of the following is true for you:

1. You are not integrating with PATROL for WebSphere Application Server.
2. You already have MMA installed for another product (if this is true for you, please refer to “To Use MMA that You Installed for Another MAINVIEW Product” on page 3-7).

### To Bypass Creating MMA Startup Procedures

**Step 1** On the Product Customization Steps panel, select Create MMA Startup Procedures.

**Step 2** When the edit panel appears, change the default from YES to NO and then press **Enter**.

**Note:** If you decide at any time during this step that you do not want to complete the step and answer NO, the screen returns to the Product Customization Steps panel. During initial customization you must complete this step or select it and say NO to the first panel as explained in the previous paragraphs.

### To Create the MMA Startup Procedures

**Step 1** Select “Create MMA Startup Procedures” from the product customization steps.

**Step 2** When the edit panel appears, press **Enter** to accept the default YES.

**Step 3** Create the parameters member for the MMA server address space:

- 3.A** When the next panel appears, accept the default (YES) to create the MMA server parameters.
- 3.B** If necessary, change the member name for the MMA server options.
- 3.C** Review the MMA server name and change it if needed.
- 3.D** Leave REPLACE MEMBER? at NO unless you are altering values that you have already customized and want to use the same member name.
- 3.E** Press **Enter**.
- 3.F** An edit panel appears that allows you to make needed changes, if any, to the generated parameters. Make any necessary changes to the parameters.
- 3.G** Save the member by typing in the END command and pressing **Enter** or by pressing **PF3**.

**Step 4** Create the startup procedure for the MMA Server.

- 4.A** When the next panel appears, accept the default (YES) to create the MMA Server startup proc.
- 4.B** If necessary, change the procedure library and proc member name.
- 4.C** Enter a password if needed.
- Note:** Security requirements of the environment into which you are installing determine whether a password is needed.
- 4.D** Leave REPLACE MEMBER? at NO unless you are altering values that you have already customized and want to use the same member name.
- 4.E** Press **Enter**.
- 4.F** An edit panel appears that allows you to make needed changes, if any, to the generated JCL. Make any necessary changes to the JCL, such as inserting the accounting number (if accounting is enabled).
- 4.G** Save the member by typing in the END command and pressing **Enter** or by pressing **PF3**.

**Step 5** Create the startup procedure for the MMA Communication Manager.

**Note:** The user ID for the MMA communication address space requires OMVS segment authority. Such authority can be defined in the same way it was defined for the HTTP server. Without OMVS segment authority, numerous socket calls made by the MMA Communication Manager will fail.

**5.A** When the next panel appears, accept the default (YES) to create the MMA Communication Manager startup proc.

**5.B** If necessary, change procedure library and proc member name and port number.

**5.C** Enter a password if needed.

**Note:** Security requirements of the environment into which you are installing determine whether a password is needed.

**5.D** Leave REPLACE MEMBER? at NO unless you are altering values that you have already customized and want to use the same member name.

**5.E** Press **Enter**.

**5.F** An edit panel appears that allows you to make needed changes, if any, to the generated JCL. Make any necessary changes to the JCL, such as inserting the accounting number (if accounting is enabled).

**5.G** Save the member and complete the entire step by typing in the END command and pressing **Enter** or by pressing **PF3**.

**To Use MMA that You Installed for Another MAINVIEW Product**

The MMA that you have installed for another product (such as MAINVIEW for WebSphere MQ) can be used only if that MMA is installed on the system on which you are installing MAINVIEW for WebSphere Application Server. After verifying the MMA location, do the following:

**Step 1** Modify your MMA server startup procedure slightly:

**1.A** Include the mmwamp00 program in the AMP startup parameters for the MMA server.

**1.B** Ensure that secamp00 is also included in the AMP startup parameters.

- Step 2** In the PATROL for WebSphere Application Server product, when you go to the WS/390 icon and choose the **Add Host** command, specify the system, the MMA Server name, and the port on which the currently installed MMA Communication Manager is listening.



---

## Create the Startup Procedure for the Product Address Space

---

**Summary:** *Required.* In this task, you complete the step of creating the startup procedure for the MAINVIEW for WebSphere Application Server product address space (PAS).

---

**Note:** The user ID for the MAINVIEW for WebSphere Application Server PAS requires OMVS segment authority. Such authority can be defined in the same way it was defined for the HTTP server. Without OMVS segment authority, numerous socket calls made by the PAS will fail.

**Step 1** On the Product Customization Steps panel, select MAINVIEW WebSphere (PAS). When the panel appears, it asks you if you need to create a data set to contain the parameters.

**Step 2** For initial customization, leave the value at YES.

**Step 3** If necessary, change the procedure library name and proc member name.

**Step 4** Enter a password if it is needed.

**Note:** Security requirements of the environment into which you are installing determine whether a password is needed.

**Step 5** Leave REPLACE MEMBER? at NO unless you are altering values that you have already customized and want to use the same member name.

**Step 6** Press **Enter**.

**Step 7** An edit panel appears that allows you to make needed changes, if any, to the generated JCL. Make any necessary changes to the JCL, such as inserting the accounting number (if accounting is enabled).

**Step 8** Save the member by typing the END command and pressing **Enter** or by pressing **PF3**.

**Step 9** Another command panel appears. In this panel you can specify whether you want to have the PAS started automatically at IPL time. BMC Software recommends that you accept the default of NO.

**Note:** See “Adjusting Anchors for Migration from Version 1.2.00 or Earlier” on page 3-20 for information about a single IPL that might be needed.

## Create Input Parm

**Summary:** *Required.* In this task, you complete the step of creating the product input parameters for MAINVIEW for WebSphere Application Server.

**Step 1** Select Create Input Parm on the Product Customization Steps panel. The next panel asks you if you need to create a data set to contain the parameters.

**Step 2** For initial customization, leave the value at YES.

**Step 3** If necessary, change the procedure library name and procedure member name.

**Step 4** Enter a password if needed.

**Note:** Security requirements of the environment into which you are installing determine whether a password is needed.

**Step 5** Leave REPLACE MEMBER? at NO unless you are altering values that you have already customized and want to use the same member name.

**Step 6** Press **Enter**.

**Step 7** In the edit panel that appears, make any necessary changes to parameter values in the generated JCL:

**7.A** Set the data interval parameters. These determine the recording interval for access log entries, error log entries, and other HTTP information.

**Table 3-2 Data Interval Parameters**

Parameter	Explanation
ACLOGINT	This parameter sets the process interval for retrieving access log entries, which are available through the Access Log Detail view in Log File Analysis. The default setting is 5 minutes.
ERLOGINT	This parameter sets the process interval for retrieving error log entries, which are available through the Error Log Detail view in Log File Analysis. The default setting is 5 minutes.

**Table 3-2 Data Interval Parameters**

Parameter	Explanation
SNMPINT	This parameter sets the process interval for retrieving information that is collected to populate the views in the HTTP Svr Interval Stats section. The default setting is 5 minutes. However, each time a user requests information from any of these views, the current line of these views is updated, and the interval counter is reset to zero.

- 7.B** Set the WLMPATH parameter, if you are going to make use of the Workload Manager in the IBM WebSphere Application Server. (A default path is provided, which you can change if you so choose.)

**Note:** WLMPATH is used for log consolidation of servers running in scalable mode. The parameter is commented out by default and does not apply to servers running in stand alone mode. Log consolidation files are written into the same directory that the server is writing access and error logs.

To activate the parameter, uncomment the line with WLMPATH and accept the default path of /tmp or set the path to a subdirectory with sufficient space and privileges. The parameter is case-sensitive. Establish a process to review and remove or archive any mvw.\* files.

- 7.C** Set the PJSPORT parameter if you are going to use the profiling features of MAINVIEW for WebSphere Application Server.

This parameter value specifies the port number to be used by the profiler executable. The default is 11000 (not a well-known port number).

**Note:** The PJSPORT number must agree with the port number that is specified in the relevant **profiler.properties** file on each system that has profiling enabled.

- Step 8** Make any other needed changes to the JCL, such as supplying the accounting number.
- Step 9** Submit the job by typing the SUBMIT command and pressing **Enter**.
- Step 10** If the completion status is not 0, make needed changes and resubmit until the completion status is 0, indicating success.
- Step 11** When the status is successful, save by typing the END command and pressing **Enter** or by pressing **PF3**.

## Create VSAM Historical Files

---

**Summary:** *Required.* In this task, you complete the step of creating the JCL for a batch file that creates VSAM data sets for interval recorder functionality. After implementing this step, you can view historical data.

---

**Note:** The MAINVIEW for WebSphere Application Server product includes a data set called MVWTIR00, which contains two parameters for historical data recording. Those parameters are explained briefly in “MVWTIR00 Data Member” on page 3-13.

**Step 1** Select “Create VSAM Historical Files” from the Product Customization Steps panel. When the next panel appears, it asks you if you need to create a data set to contain data from the historical data recorder.

**Step 2** For initial customization, leave the value at YES.

**Step 3** If necessary, make any changes to the procedure library name, proc member name, and number of cylinders.

**Note:** The generated JCL creates three VSAM data sets, each having the number of cylinders for data that are specified in this panel.

**Step 4** Enter a password if needed.

**Note:** Security requirements of the environment into which you are installing determine whether a password is needed.

**Step 5** Leave REPLACE MEMBER? at NO unless you are altering values that you have already customized and want to use the same member name.

**Step 6** Press **Enter**.

**Step 7** In the edit panel that appears, make changes (if needed) to the JCL.

**Step 8** Submit the job by typing the SUBMIT command and pressing **Enter**.

**Step 9** If the completion status is not 0, make needed changes and resubmit until the completion status is 0, indicating success.

**Step 10** When you are satisfied with the JCL, save it by typing the END command and pressing **Enter** or by pressing **PF3**.

## MVWTIR00 Data Member

With the implementation of historical data recording in MAINVIEW for WebSphere Application Server, the MVWTIR00 member has been added to the <hilevel>.BBPARM data set. This member includes the following two parameters that specify how long the recording interval is and when the interval ends.

If no record data sets are present, interval recording does not occur. Completing the AutoCustomization step associated with this information, “Create VSAM Historical Files” on page 3-12, creates the needed data sets.

**Table 3-3 MVWTIR00 Member Parameters**

Name	Description	Default Setting
INTVAL	sets the interval (in minutes) for calling the historical data recorder Possible values are SMF or integers 0–60. An integer must divide evenly into 60. If you specify SMF, the value is taken from the SMF interval that is set for your system.	15
SYNCVAL	specifies the number of minutes from the hour when the interval ends. If INTVAL=SMF, SYNCVAL is ignored.	0

## Copy Profiler Executable and Properties File into HFS Directory

---

**Summary:** *Optional.* In this task you create the JCL for creating a batch file that copies the profiler executable program and the profiler properties file, both of which are required for profiling to take place in MAINVIEW for WebSphere Application Server. The JCL needs be created only once, but it must be run on every system on which profiling is to take place.

---

**Tip:** Profiling can be very useful in tuning the WAS environment and in diagnosing performance problems, but it can consume quite a lot of resources. The MAINVIEW for WebSphere Application Server product provides a means for dynamically enabling and disabling profiling categories. For additional information, refer to the *MAINVIEW for WebSphere Application Server User Guide*.

**Note:** For profiling to succeed, in addition to completing the steps of this task, you must make modifications to configuration files as explained in “Modifying Configuration Files for Profiling” on page 3-17.

**Warning!** The 2.2 profilers are not backward-compatible with previous versions of MAINVIEW for WebSphere Application Server. Installing the 2.2 profilers over the top of a previous installation will prevent the profilers from working properly with previous releases of MAINVIEW for WebSphere Application Server.

**Step 1** Select “Copy Profiler Executable and Properties into HFS directory” from the product customization steps. The panel that comes up asks you if you need to create JCL for a batch job.

**Step 2** For initial customization, leave the value at YES.

**Step 3** Enter the password if needed.

**Note:** Security requirements of the environment into which you are installing determine whether a password is needed.

**Step 4** If necessary, change the name of the JCL procedure member (the default is MVWPJS).

- Step 5** If necessary, change the values for the following parameters of the batch file program that will copy needed files for profiling:
- **PROFILER EXECUTABLE** specifies a location in your environment into which the executable for profiling will be copied. BMC recommends the following location: **/var/bmc/2.2/lib**.
  - **PROFILER PROPERTIES** specifies a location in your environment into which the profiler.properties file will be copied. BMC recommends the following location: **/var/bmc/2.2/cfg**.
- Step 6** Leave **REPLACE MEMBER?** at **NO** unless you are altering values that you have already customized and want to use the same member name.
- Step 7** Press **Enter**.
- Step 8** In the edit panel that appears, make changes (if needed) to the JCL.
- Step 9** Perform one of the following actions:
- If you will use the profiling feature *only* the system on which you have created the JCL:
    1. Submit the job by typing **SUBMIT** and pressing **Enter**.
    2. If the completion status is not 0, make needed changes and resubmit until the completion status is 0, indicating success.
  - If you will use the profiling feature on more than one system:
    1. Save the JCL by typing the command **END** and pressing **Enter** or by pressing **PF3**.
    2. Copy the JCL on each system on which profiling will be done.
    3. Submit the JCL separately on each system, ensuring that the completion code is 0 for each submission.

## Other Customization Tasks

If you are using the profiling capabilities of MAINVIEW for WebSphere Application Server, you must complete a few steps beyond those facilitated through AutoCustomization. “Modifying Configuration Files for Profiling” on page 3-17 explains those steps.

In addition, if the most recently active version of MAINVIEW for WebSphere Application Server on your system was lower than 2.0.00, you will need to perform a step so that the product can initialize. “Adjusting Anchors for Migration from Version 1.2.00 or Earlier” on page 3-20 explains this step.



## Modifying Configuration Files for Profiling

**Summary:** In this task, you will add one parameter and modify another parameter in the WAS configuration file that applies to the version of IBM WebSphere Application Server you are using, and you will modify the **profiler.properties** file you copied as part of completing AutoCustomizations.

**Step 1** Modify the WAS configuration file that pertains to the version you are using on the system you are customizing:

### For WAS 3.5 sites

**1.A** Add a new parameter to the **was.conf** file by copying the following line:

```
appserver.java.extraparm=-XrunBMCPProfiler:dir=/var/bmc/2.2/cfg,cfg=profiler.properties,log=ERROR,logfile=BMCPProfiler.log
```

**1.B** Modify the existing *appserv.libpath* parameter for the **was.conf** file by appending the path for the profiler executable file (the default path is `/var/bmc/2.2/lib`).

If that default is used, the modified *appserv.libpath* parameter should look like this:

```
appserver.libpath=<site specific paths>:/var/bmc/2.2/lib
```

(If you choose a path other than the default, append the path you have chosen instead of the default path. If you later change the location of the profiler executable file, modify the *appserv.libpath* parameter to reflect that change.)

### For WAS 4.x Sites

**1.A** Add a new parameter to the **current.env** file by copying the following line:

```
JVM_EXTRA_OPTIONS=-XrunBMCPProfiler:dir=/var/bmc/2.2/cfg,cfg=profiler.properties,log=ERROR,logfile=BMCPProfiler.log
```

**1.B** Modify the existing *LIBPATH* parameter by appending the path for the profiler executable file (the default path is `/var/bmc/2.2/lib`).

If that default is used, the modified *LIBPATH* parameter should look like this:

```
LIBPATH=<site specific paths>:/var/bmc/2.2/lib
```

(If you choose a path other than the default, append the path you have chosen instead of the default path. If you later change the location of the profiler executable file, modify the *LIBPATH* parameter to reflect that change.)

**Note:** Manual changes to the WAS 4.x **current.env** file will be overwritten when a SM/EUI conversation is activated. To ensure that the additional parameter is retained, do one of the following:

- Make these changes through a SM/EUI conversation.
- Keep a record of this and any other manual changes to the **current.env** file and include them in the next SM/EUI conversation that you activate.

(Please refer to IBM documentation for more information concerning the SM/EUI administration tool.)

## For WAS 5.0

**1.A** In the **servant.jvm.options** file, add a new parameter by copying the following line:

```
-XrunBMCProfiler:dir=/var/bmc/2.2/cfg,cfg=profiler.properties,log=ERROR,logfile=BMCv5Profiler.log
```

**1.B** In the **was.env** file, modify the existing `server_region_libpath` statement by appending the path for the profiler executable file (the default path is `/var/bmc/2.2/lib`).

If that default is used, the modified `server_region_libpath` statement should look like this:

```
server_region_libpath=<site specific paths>:/var/bmc/2.2/lib
```

**Step 2** If you want to profile classes at WebSphere server startup, you must add the fully qualified classes to the **profiler.properties** file and enable method profiling by uncommenting the `JVMPI_METHOD_ENTRY` and `JVMPI_METHOD_EXIT` lines within the **profiler.properties** file. Otherwise, you may start profiling classes dynamically by enabling method profiling from the `PROFJOBS` view and starting the desired class(es) from the `JVMCLASS` view.

Regardless of the WAS version you are using, modify the `profiler.properties` file you copied with the profiler executable by adding the fully qualified name of each application class you for which you want profiling statistics.

**2.A** Open the file with a text editor, and find the line that reads  
`patrol.profiler.classes=Test,\`

**2.B** Following that line, add the name of each class you for which you want profiling statistics. In adding class names, please observe the following conventions:

- If the class names are dot-delimited, replace each dot '.' with a forward slash "/".
- Use a backslash "\" to continue a class name on the next line.
- Use a comma to indicate the end of each class name except the final class name

When you are finished, the class name portion of the **profiler.properties** file should look like the following example, except that your application classes will be inserted:

```
#
# Classes that are to be profiled
#
patrol.profiler.classes=Test,\
com/ibm/servlet/engine/oselister/AppServerEntryFactory
...
```

**Note:** You can use an asterisk (\*) to wildcard classes.

**2.C** Save the **profiler.properties** file and restart the application server.

## Adjusting Anchors for Migration from Version 1.2.00 or Earlier

---

If any version of MAINVIEW for WebSphere Application Server version lower than 2.0.00 has been active on the system since the most recent IPL, certain system settings remain from the previous version, and MAINVIEW for WebSphere Application Server 2.1.00 will not initialize. To allow your system to initialize, after customizing MAINVIEW for WebSphere Application Server 2.1.00 and before starting the product, do one of the following:

- Download and apply a zap that sets the correct settings (contact BMC Software Support for details).
- Perform a system IPL.

## Where to Go from Here

With customization complete, you should be ready to get started using MAINVIEW for WebSphere Application Server. Please refer to the *MAINVIEW for WebSphere Application Server User Guide* for information about getting the product started and using it to monitor the IBM WebSphere Application Server environment on your OS/390 or z/OS system.



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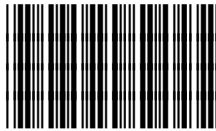
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